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EXAMINER
VAN DOREN, BETH

ART UNIT	PAPER NUMBER
2163	

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Please find below and/or attached an Office communication concerning this application or proceeding.

HS

Office Action Summary	Application No.	Applicant(s)	
	09/427,149	WARD, RICHARD E.	
	Examiner	Art Unit	
	Beth Van Doren	2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 October 1999* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-65* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-65* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 October 1999* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1. The following is a Non-final Rejection on the merits. Claims 1-65 are pending.

Claim Objections

1. Claim 32 is objected to because of the following informalities: Omitted Words. On page 42, line 17, the phrase "selectable from a collection mutually exclusive choices" should contain the word "of" after the word "collection". Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 11, 24, 26, 30, 41, 51, and 64 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 1, page 35, line 12, recites the limitation "electronic workflow capable of assisting completion". The word "capable" is vague and indefinite claim language because it does not disclose the essential steps used by the applicant to perform such an action.

Claim 30, in page 41, line 20, and claim 41, in page 44, line 22, also recite this limitation and are rejected on the same merits as claim 1.

4. Claim 11, page 37, line 9, recites the limitation "the workflow related data items". There is a lack of proper antecedent basis for this limitation in the claim. The limitation relies upon a constraint of parent claim 2 by dependant claim 12, a constraint, therefore, that does not apply to claim 11 and cannot be referenced as a precursor therein.

Claim 51, page 46, line 23, also recites this limitation and is rejected on the same merits as claim 1.

5. Claim 24, page 39, line 16, recites the limitation "the care plan". There is a lack of proper antecedent basis for this limitation in the claim. The limitation relies upon a constraint of parent claim 1 by dependant claim 15, a constraint, therefore, that does not apply to claim 24 and cannot be referenced as a precursor therein.

Claim 64, page 49, line 7, also recites this limitation and is rejected on the same merits as claim 1.

6. Claim 26, page 40, line 12, recites the limitation "care plans". There is a lack of proper antecedent basis for this limitation in the claim. Based on the wording of the claim, it is believed that the inventor's intent was to use this phrase interchangeably with the phrase "service plans". The claim has been prosecuted as such in the present action. Appropriate correction is required.

7. Claim 26, page 40, line 14, recites the limitation "causing initiation of the revised workflow instances for each revised service plan". There is a lack of proper antecedent basis for this limitation in the claim. Revision to workflow instances and service plans is not expressly disclosed until subsequent claim 29, which is dependent on claim 26. The ordering of the disclosure of the method is improper.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 11-12, 15-16, and 21-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Macrae et al. (U.S. 5,826,237).

9. As per claim 1, Macrae et al. teaches a method for automatically generating a service plan and associated work flow for a customer using a computer based network comprising the steps of:

Creating a plurality of structured sentences for each of a plurality of identified customer needs in an electronic storage area, said plurality of structured sentences including structured sentences for services, each structured sentence for service identifying a needed service corresponding to one of the identified customer needs (See Figure 12. See also column 7, lines 34-35, column 9, lines 55-70, and column 10, lines 1-10. Macrae et al. discloses a library containing hierarchical folders. For example, if the service of strep throat culture is needed by a customer, the Labs category would be opened, which contains different types of labs and their different services); and

Creating an electronic workflow capable of assisting completion of each needed service (See column 7, lines 16-19 and 56-62, in which Macrae et al. teaches the steps of defining a treatment work flow and creating an electronic template using this work flow).

10. As per claim 2, Macrae et al. further discloses a method wherein said step of creating an electronic workflow creates a workflow process instance for each needed service, such that there exists a workflow process instance associated with each structured sentence for service (See column 7, lines 29-37, in which Macrae et al. further discusses the above mentioned service folders in context with the order nodes that make up the electronic template. Each instance in the

work flow process is represented by an order node and each order node represents a needed service which derives its attributes from the categorized folders described above).

11. As per claim 3, Macrae et al. further discloses a method wherein said plurality of structured sentences have a subject and a plurality of attributes contained therein (See column 7, lines 33-37).

12. As per claim 4, Macrae et al. further discloses a method wherein certain of the attributes associated with the structured sentences for services contain a selected attribute value chosen from among a group of possible attribute values (See column 10, lines 6-9, wherein Macrae et al. disclose the selected strep test, an attribute of a lab test, costing $40).

13. As per claim 5, Macrae et al. further discloses a method wherein certain ones of said workflow process instances have at least one decision step, task firing condition, or routing rules that creates a plurality of possible sequences of tasks that are invoked as part of the execution of said workflow process instances (See, for example, Figure 2 in which Macrae et al. disclose a simplified template for work flow dealing with step throat. The result of the step test directs the continuation of the workflow along a predetermined branch, which will encounter another order node with similar capabilities. See column 13, lines 26-30, in which Macrae et al. discloses flow control nodes, which are coupled with order nodes and contain a set of routing rules).

14. As per claim 6, Macrae et al. discloses a method further including the step of modifying at least one of the structured sentence attributes, which modification also causes a change to the sequence of tasks invoked within at least one of the workflow instances (See column 21, lines 8-12 and lines 18-21, in which Macrae et al. teach the modification procedure utilitized when altering order nodes of a predefined workflow).

15. As per claim 7, Macrae et al. further discloses a method wherein selecting a different one of the possible attributes from among the group of possible attributes will result in the selection of a different one of the plurality of possible routes with respect to an associated decision step, task firing condition or routing rule (See column 32, lines 39-44, which explains the rule object node interfaces that governs the workflow. The decision made about the selection of an attribute contained in an order node determines the route followed in the workflow path).

16. As per claim 11, Macrae et al. further discloses a method wherein certain ones of said workflow process instances have at least one decision step, task firing condition, or routing rule that creates a plurality of possible routes contained therein, and further including the step of creating or modifying at least one of the workflow relevant data items, which modification also causes a change to the sequence of tasks invoked within at least one of the workflow process instances (See column 21, lines 8-12 and 18-21, wherein Macrae et al. disclose modifying the process instance by adding a node, deleting a node, or modifying the contents of an existing node. Since these nodes dictate the flow of the predefined service plan, their modification will cause changes in said flow).

17. As per claim 12, Macrae et al. further discloses a method wherein certain ones of said plurality of workflow process instances have workflow relevant data contained therein (See column 7, lines 29-36, wherein Macrae et al. discuss the order items contained in the process instance of order nodes. Order item data may include attributes such as category, name, description, cost, etc.).

18. As per claim 15, Macrae et al. further discloses a method wherein the plan is a care plan, the customer is a patient, and the plurality of identified customer needs are health related

problems to be addressed as part of the patient's care (See column 7, lines 16-19, and column 8, lines 4-22. Macrae et al. discloses a workflow care plan in the form of a medical treatment template and provides a specific Clinical Template example, teaching a simple workflow for treating a patient with a sore throat. The items in the order nodes are defined by hierarchical folders of health related categories, as discussed in the prosecution of claim 1).

19. As per claim 16, Macrae et al. further discloses a method wherein the step of creating a plurality of structured sentences is created by an interdisciplinary team of clinicians (See column 7, lines 17-20. In column 1, lines 13-20, Macrae et al. defines the user typically responsible for creating a medical healthcare plan as being a physician, clinician, or committee member).

20. As per claim 21, Macrae et al. discloses a method further including the step of creating other structured sentences, said other structured sentences including structured sentences for a goal, a fact, a protocol, and a finding (See column 8, lines 23-29, wherein Macrae et al. provides for the creation of other structured sentences that have an objective, information, a set of rules, and a result. See column13, lines 29-31, which discuss the rules contained in the flow control nodes that dictate the workflow).

21. As per claim 22, Macrae et al. discloses a method further including the step of initiating the workflow (See column 17, lines 27-29, which discusses assigning a workflow template to a specific patient and executing said workflow).

22. As per claim 23, Macrae et al. further discloses a method including updating the service plan as workflow progresses (See column 22, lines 28-44, in which Macrae et al. discusses the situation where another service plan must be invoked for a patient while another is already running, such as the situation of a pregnant woman, who is utilizing the pregnancy template,

getting a sore throat midterm and needing other services. In a case such as this, secondary templates may be called and merged with the current template).

23. As per claim 24, Macrae et al. further discloses a method wherein updates are provided to a user of the care plan in one form and updates are provided to the customer in another form (See figure 46. which displays the updated workflow after the merge process disclosed by Macrae et al. is completed).

24. As per claim 25, Macrae et al. further discloses a method wherein the one form is directed to a clinician and the other form is directed to a nonmedical person (See column 22, lines 45-50, and column 25, lines 47-51, which explains the user interacting with the workflow updates during the merge process. In the merge example disclosed by Macrae et al. in column 22, lines 56-67, the user receiving the merge updates is Mr. Sander's doctor).

25. As per claim 26, Macrae et al. discloses a method of automatically updating a predetermined plurality of existing service plans corresponding to a respective plurality of customers, each of said service plans including a plurality of structured sentences for each of a plurality of identified customer needs stored in an electronic storage area, said plurality of structured sentences including structured sentences for services, each structured sentence for service identifying a needed service corresponding to one of the identified customer needs and an electronic workflow capable of assisting completion of each needed service (See column 7, lines 15-19, 29-37, and 56-67, and column 8, lines 1-3), the method comprising the steps of:

generating a report based upon data contained within each of the predetermined plurality of existing service plans or from data obtained from performing workflow associated with each of the predetermined plurality of existing service plans (See Figures 14 and 15 and column 10,

lines 37-51, wherein Macrae et al. teaches displaying a summary of the result node content listing the status of the orders of the workflow. Further details of the specifics of each order item can also be displayed. See also Figure 13, which is another report of the workflow, summarizing the work orders contained in the service plan);

selecting a plurality of customers in need of one or more services (See column 17, lines 23-25, wherein Macrae et al. discloses assigning a care plan template to a patient or multiple patients in need of said template);

adding new structured sentences that are common to the predetermined plurality of existing care plans for the selected plurality of customers (See column 7, lines 54-67, and column 8, lines 1-3, in which Macrae et al. discloses creating and saving brand new care plans as well as retrieving existing care plans from a template library. The retrieved care plan can be modified and saved to the template library. See column 21, lines 8-11, which discusses adding new order structured nodes to a generic care plan to create a new, specific care plan).

Causing initiation of the revised workflow instances for each revised service plan (See column 17, lines 24-29, in which Macrae et al. discloses tailored workflows being assigned to patients and executed).

26. As per claim 27, Macrae et al. further discloses a method wherein said plurality of structured sentences have a subject and a plurality of attributes contained therein and wherein the step of adding new structured sentences includes the step of determining certain of said plurality of attributes for said new structured sentences based upon a characteristic that is common to each of said respective plurality of customers (See column 8, lines 23-29, in which Macrae et al.

teaches using a generic treatment template to create a clinic template that can be used to treat all patients that are experiencing a sore throat).

27. As per claim 28, Macrae et al. further discloses a method wherein said plurality of structured sentences have a subject and a plurality of attributes contained therein and wherein the step of adding new structured sentences includes the step of individually determining other ones of said plurality of attributes for said new structured sentences based upon another characteristic that is not common for each of said respective plurality of customers (See column 21, lines 8-11, in which Macrae et al. discusses further customizing templates based on differing needs of customers).

28. As per claim 29, Macrae et al. further discloses a method wherein the step of adding new structured sentences further includes the step of modifying certain existing structured sentences that are common to the predetermined plurality of existing service plans based upon the data (See column 19, lines 29-40, which discusses manually executing a plan so that the flow proceeds down a branch of the plan regardless of the determined data and forcing it to consider the other data's route); and

wherein the step of adding workflow instances includes the step of revising workflow instances associated with the modified certain existing structured sentences (See column 22, lines 59-67, which explains the idea of a merge. Merging order structured nodes into the plan can be occur at any point during the original plan's execution).

29. As per claim 30, Macrae et al. discloses a method for creating a service plan and an associated workflow for a customer using a computer based network comprising the steps of:

providing electronically:

a plurality of structured sentence data items for each of a plurality of possible customer needs in an electronic storage area, said plurality of structured sentence data items including structured sentence data items for services, each structured sentence item for service identifying a needed service corresponding to one of the possible customer needs (See Figure 12. See also column 7, lines 34-35, column 9, lines 55-70, and column 10, lines 1-10. Macrae et al. discloses a library containing hierarchical folders. For example, if the service of strep throat culture is needed by a customer, the Labs category would be opened, which contains different types of labs and their different services);

an electronic workflow capable of assisting completion of each needed service (See column 7, lines 20-62, in which Macrae et al. teaches in depth the building of an electronic workflow);

and at least first and second templates, each of said at least first and second templates comprising a different set of certain ones of said plurality of structured sentence data items that each relate to different possible customer needs (See column 7, lines 62-67, and column 8, lines 1-3, in which Macrae et al. discusses retrieving a existing template from a template library, building a new template and saving it to said library, or retrieving and modifying an existing template similar to the current situation. The template library, therefore, contains multiple prewritten workflows);

selecting at least a first template that relates to an identified customer need (See column 7, lines 63-67, and column 8, lines 1-3, which discuss selecting a template that coincides with a treatment needed for a patient); and

selecting those structured sentence data items within the first template that relate to the specific need of a particular customer, the step of selecting those structured sentence data items also causing the selection of workflow instances capable of assisting completion of each needed service (See again column 7, lines 63-67, and column 8, lines 1-3, in which Macrae et al. discuss selecting the parts of a similar, existing template and modifying the template to suit the current need. When selecting the nodes in the workflow that are applicable to the situation, the user is also selecting the structure sentence data items contained therein).

30. As per claim 31, Macrae et al. further discloses a method wherein said plurality of structured sentence data items have a subject and plurality of attributes contained therein and wherein the step of selecting those structured sentence data items includes the step of determining the values for a plurality of said attributes for corresponding structured sentences in a service plan for a customer (See column 7, lines 33-37, which describe the subject and attributes contained in the structured order nodes of the workflow. A determination concerning the value of an attribute contained in a structured order node is made, for example see column 8, lines 11-22, wherein the attribute strep test is determined to have a positive or negative value, and the route taken in the plan is based on these values).

31. As per claim 32, Macrae et al. further discloses a method wherein the attribute values for certain ones of said plurality of attributes is selectable from a collection of mutually exclusive choices (See again column 8, lines 11-22, wherein the value of the attribute strep test can only come back positive or negative).

32. As per claim 33, Macrae et al. further discloses a method wherein the attribute for certain ones of said plurality of attribute is a date (See column 14, lines 51-54, in which Macrae et al.

discusses the implementation of ongoing order structured nodes. See column 14, lines 63-67, and column 15, line 1, wherein Macrae et al. discloses that the ongoing order has attributes such as start date or repetition date).

33. As per claim 34, Macrae et al. further discloses a method wherein the attribute for certain ones of said plurality of attributes is a dosage (See column 14, lines 51-54, in which Macrae et al. discusses the implementation of ongoing order structured nodes. See column 15, lines 9-15, in which Macrae et al. discloses that the ongoing order indicates medication to be given with a care plan at a specified speed and dosage).

34. As per claim 35, Macrae et al. further discloses a method wherein the service plan is a care plan, the customer is a patient, the plurality of possible customer needs are health related problems, and the identified customer needs are those health related problems of the customer (See column 7, lines 16-19, and column 8, lines 4-22. Macrae et al. discloses a workflow care plan in the form of a medical treatment template and provides a specific Clinical Template example, teaching a simple workflow for treating a patient with a sore throat. The items in the order nodes are defined by hierarchical folders of health related categories).

35. As per claim 36, discloses a method further including the step of initiating the workflow, the step of initiating the workflow being caused by a user verifying the accuracy of the service plan (See column 17, lines 24-29, wherein Macrae et al. discusses assigning a template to a patient and executing said template. At the time of assignment, the plan of the template may have already been tailored to meet the needs of the patient, or modification can occur before or during execution).

36. As per claim 37, Macrae et al. further discloses a method wherein during the step of providing a plurality of structured sentence data items is accomplished by a generic metadata supplier that transmits the data to a service provider user, and the service provider user performs the steps of selecting (See column 7, lines 34-35 and 63-67, and column 8, lines 1-3 and 24-29, wherein Macrae et al. discusses libraries containing generic order node component items and generic templates, which are accessed by the user and modified to meet the specific needs of said user and his/her patient).

37. As per claim 38, Macrae et al. discloses a method further including the step of the service provider adding structured sentences to the service plan (See column 21, lines 8-12, in which Macrae et al. discloses a user modifying a generic service plan template by adding order structured nodes that contain attributes to the user's treatment needs).

38. As per claim 39, Macrae et al. discloses a method further including the step of the service provider modifying certain ones of the selected structured sentences from the service plan (See column 21, lines 8-12, in which Macrae et al. discloses a user modifying a generic service plan template by adding, deleting, or modifying order structured nodes that contain attributes to the user's treatment needs).

39. As per claims 41-47, 51-52, 55-56, and 61-65, claims 41-47, 51-52, 55-56, and 61-65 are apparatus versions of claims 1-7, 11-12, 15-16, and 21-25, respectively. Since the specification provides nothing more than a software device running in a network computing environment utilizing standard computers, claims 41-47, 51-52, 55-56, and 61-65 are rejected on the same grounds as the methods of claims 1-7, 11-12, 15-16, and 21-25, respectively.

Claim Rejections - 35 USC § 103

40. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 8-10, 13-14, 17-20, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macrae et al. (U.S. 5,826,237) in view of Brown (U.S. 6,161,095).

41. As per claim 8, Macrae et al. discloses a method further including the step of electronically inputting data, and wherein the electronically input data causes a change to the sequence of tasks invoked within at least one of the workflow process instances (See column 21, lines 8-12 and lines 18-21, in which Macrae et al. teaches the modification procedure utilitized when altering order nodes of a predefined workflow).

As per claims 9 and 10, Macrae et al. teaches the same method elements as disclosed by claim 8. Claims 8 and 9, therefore, are prosecuted on the same merits as claim 8.

As per claim 13, Macrae et al. discloses a method further including the step of using electronically inputted data to create or modify workflow relevant data for certain ones of the workflow process instances (See column 21, lines 8-12 and 18-21, wherein Macrae et al. disclose modifying the process instance by adding a node, deleting a node, or modifying the contents of an existing node).

However, in claims 8, 9, 10, and 13, Macrae et al. does not expressly that this data is electronically inputted answers in response to questions.

Brown does disclose electronically inputting answers to questions, wherein:

i. As per claim 8, the electronically inputted answers to questions cause a change to the sequence of tasks invoked within at least one of the workflow process instances (See column 5, lines 24-26 and 30-34).

ii. As per claim 9, the step of electronically inputting answers to questions is performed by the customer (See again column 5, lines 24-26 and 30-34).

iii. As per claim 10, the step of electronically inputting answers includes the steps of the customer remotely answering questions and transmitting the questions for inputting via the Internet (See figure 1, wherein Brown discloses the devices used for inputting the answers to questions being linked to servers and the workflow processes via a Network such as the Internet. See also column 5, lines 50-52 and 58-67).

iv. As per claim 13, the electronically input answers to questions are used to create or modify an existing workflow process instances (See column 5, lines 24-26 and 30-34).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use questions specifically as the means for obtaining electronically input data from a user because modifying a service plan would more easily be accomplished. Macrae et al. discloses one motivation for the invention being the ability to allow for convenient modification of medical treatments (See column 2, lines 25-26). Macrae et al. presents an "ongoing order" feature in the invention that requires input for fields such as duration and number of amounts (See column 14 and 15, lines 51-67 and 1-5, respectively). The order runs to completion, or until the user discontinues the order (See column 15, lines 19-22). Macrae et al. discloses using this feature for medicating a patient during a planned treatment. The time needed to modify a plan, such as one for medicating a patient, would be greatly reduced by the user having the ability to

directly query the customer to determine the effictiveness of a treatment, as disclosed by Brown (See column 4, lines 43-51, and column 5, lines 58-66).

42. As per claim 14, Macrae et al. further discloses a method wherein the step of executing a workflow process instance includes the step of creating or modifying workflow relevant data that maps changes in response options in a question or structured sentence item to the response options in at least one other question or structured sentence data item, thereby creating a single data value used in a decision step, task firing condition or routing rule as part of the execution of said workflow process instance (See column 21, lines 8-12 and 18-21, wherein Macrae et al. disclose modifying the process instance by adding a node, deleting a node, or modifying the contents of an existing node).

However, Macrae et al. does not expressly disclose obtaining the workflow relevant data that prompts the change through the performance of a query. Brown does disclose performing a query to create or modify workflow relevant data that maps the response options in a question or structured sentence item to the response options in at least one other question or structured sentence data item (See column 5, lines 24-26 and 30-34).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to obtain the workflow relevant data through specifically performing a query because the ease of modification of a service plan would greatly increase. Macrae et al. discloses one motivation for the invention being the ability to allow for convenient modification of medical treatments (See column 2, lines 25-26). Macrae et al. presents an "ongoing order" feature in the invention that requires input for fields such as duration and number of amounts (See column 14 and 15, lines 51-67 and 1-5, respectively). The order runs to completion, or until

the user discontinues the order (See column 15, lines 19-22). Macrae et al. discloses using this feature for medicating a patient during a planned treatment. The time needed to modify a plan, such as one for medicating a patient, would be greatly reduced by the user having the ability to directly query the customer to determine the effectiveness of a treatment, as disclosed by Brown (See column 4, lines 43-51, and column 5, lines 58-66).

43. As per claim 17, Macrae et al. disloses a method that creates an electronic workflow, said workflow containing order nodes with actions to be performed (See column 7, lines 20-37). However, Macrae et al does not expressly disclose creating alerts to signify that an action needs to be taken.

Brown et al. does disclose a method wherein the step of creating the electronic workflow includes creating an alert that will signify that an action needs to be taken (See column 4, lines 43-51, wherein Brown discusses a service provider creating a treatment regimen and a protocol to be followed be a patient device, said regimen and protocol being sent via a network to a server device and then to a patient device. See column 5, lines 3-14, in which Brown discusses performing an act based an alert message issued as a reminder to a patient. The actions to be performed are dictated by a treatment regimen determined at another device and transferred, via a network, to the patient's device).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to equip the electronic workflow with the means to alert a patient to take action because including this functionality would reduce errors associated with a medical healthcare plan. Errors occur, for example, when a plan is communicated between a healthcare planner and provider, as discussed by Macrae et al. in the background of the invention. Also errors can occur

due to misunderstandings between a doctor and the patient subject to the prescribed treatment protocol. These errors can be overcome by creating reusable templates that govern a workflow and providing signals to alert a user of a workflow regimen when a specified action is to be taken, as dictated by the template/protocol.

44. As per claims 18, 19, and 20, Macrae et al. discloses a method of generating a service plan further including the step of automatically generating a translation of the service plan (See Figures 14 and 15 and column 10, lines 37-51, wherein Macrae et al. teaches displaying the result node content, which is a summarized list of the status of the orders of the workflow. Further details of the specifics of each order item can also be displayed. See also Figure 13, which is another translation of the workflow diagram, summarizing the work orders contained in the service plan). Macrae et al. also disclose exporting patient plan data to other applications (See column 21, lines 44-53). However, Macrae et al. does not expressly disclose translating a service plan and transmitting the translation or revised translation to a customer at a remote computer.

Brown discloses a method further including the steps of:

i. As per claim 18, automatically generating a translation of the service plan and transmitting the translation of the service plan to the customer (See column 4, lines 43-51, wherein Brown discusses sending a treatment regimen and protocol via a network to a service device and database as well as a patient device and/or a pharmacist device and/or a medical professional device).

ii. As per claim 19, revising the automatically generated translation prior to the step of transmitting (See column 5, lines 61-67, wherein Brown discusses editing the treatment plan

and protocol at the service device and then transmitting the new plan to the patient device and/or a pharmacist device and/or medical professional device).

iii. As per claim 20, transmitting the translation to a remote computer associated with a customer (See column 5, lines 1-3, and column 6, lines 29-43, wherein Brown discusses the remote functionality of the method).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to automatically generate a translation of the workflow and have that translation, original or revised, transmitted to a remote customer because doing so would make the method not only more user friendly, but also more efficient. Macrae et al. provides the means to paraphrase the elements of an electronic workflow in chart more easily understandable by a person who did not create the template. Macrae et al. also discloses the need to allow for the convenient modification of these elements that make up the medical health treatment plan (See column 2, lines 25-26). Brown discusses that it would be advantageous to provide a patient with a device coupled to a communication system in order to relay information and feedback between medical expert/protocol device and the patient device, thus allowing for more effective modifications of the treatments to occur (See column 2, lines 31-42).

45. As per claim 41, Macrae et al. discloses a method of automatically generating the data needed to inform the process of updating structured sentence data items and associated workflow process specifications that are usable for the creation and execution of a service plan, said plurality of structured sentence data items including structured sentence data items for services, each structured sentence data item for service identifying a needed service corresponding to identified customer needs, said associated workflow process specification capable of assisting

completion of each needed service (See Figure 12. See also column 7, lines 34-35, column 9, lines 55-70, and column 10, lines 1-10. Macrae et al. discloses a library containing hierarchical folders. For example, if the service of strep throat culture is needed by a customer, the Labs category would be opened, which contains different types of labs and their different services). However, Macrae et al. does not expressly disclose including alerts that occur to signify that an action needs to be taken.

Brown discloses a method that includes alerts that occur to signify that an action needs to be taken, the method comprising the steps of:

obtaining dismissed alerts associated with existing service plans that include correspondence of certain ones of said structured sentences, said dismissed alerts being designated as one of an appropriate alert and an inappropriate alert (See column5, lines 3-8, 24-30, and 58-67, in which Brown discloses a remote device used by a patient that issues reminders that alert the patient of required action in accordance with a treatment plan. Alerts are dismissed appropriately by the system if the user performs the act in a timely manner or alerts are dismissed inappropriately by noncompliance of the patient with the reminder);

grouping related inappropriate alerts (See column 5, lines 58-67, wherein Brown discusses the protocol reviewing feedback of the patient's actions. This review takes place at a server device); and

determining a revised workflow and revised structured sentences based upon the grouping of inappropriate alerts (See column 5, lines 63-67, and column 6, lines 1-3, in which the treatment is left alone or altered based on the effectiveness and/or compliance of the patient.

The regimen can be forwarded to a pharmacist and/or a physician for further review and updating).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to equip the electronic workflow with an alert system because including this functionality would allow for efficient revision of prescribed treatment plans. The templates disclosed by Macrae et al. provide treatment plans based on predetermined attributes and outcomes. These branches are static unless the system has the ability to access the actual effectiveness of the treatment as well as the patient's compliance with said treatment. Brown discloses the advantages of user feedback in column 2, lines 37-43, specifically teaching the alteration of a workflow in response to the review and analysis of user feedback.

46. As per claims 48-50, 53-54, and 57-60, claims 48-50, 53-54, and 57-60 are apparatus versions of claims 8-10, 13-14, and 17-20, respectively. Since the specification provides nothing more than a software device running in a network computing environment utilizing standard computers, claims 48-50, 53-54, and 57-60 are rejected on the same grounds and motivations as the methods of claims 8-10, 13-14, and 17-20, respectively.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Campbell et al. (U.S. 6,047,259) teaches a method and system for interactively managing a physical exam using predefined templates that dictate the flow of the exam. Treatment protocols can also be selected using the system. The system displays to the user warnings and questions that arise during the exam.

Goltra (U.S. 5,794, 208) discloses method and apparatus for creating protocols useful when manipulating a patient chart. The computer-based chart program creates a protocol by selecting medical findings from a general database, the general database grouping the findings into categories such as symptoms, tests, and therapies. These are used to create a protocol applicable to a specific patient.

Lavin et al. (U.S. 5,772,585) teaches a system and method that manages medical information. The invention utilizes a relational database to establish relationships between items (patient medical history, appointment schedules, vital statistics, etc) stored in memory. The databases take the form of categorical tables. The invention uses these relational databases to automatically generate reminders about appointments as well as generate medical alerts and warnings about a patients allergies.

Mayaud (U.S. 5,845,255) discloses a system for managing prescriptions that assembles a patient's medical history from databases and prescribes a medication treatment for said patient using a long list of medications that are classified in tables by their attributes. The system also assigns alerts to specific drugs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Van Doren whose telephone number is (703) 305-3882. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

bvd
February 22, 2002

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